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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|-----------------------|---------------------|------------------|
| 10/573,310 | 03/24/2006 | Dirk Jeroen Breebaart | NL 031157 | 1972 |
| 24737 7590 10/06/2009 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510 | | | | |
| EXAMINER | | | | |
| TRAN, CON P | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2614 | | | | |
| MAIL DATE | | DELIVERY MODE | | |
| 10/06/2009 | | PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/573,310

Applicant(s)

BREEBAART, DIRK JEROEN

Examiner

CON P. TRAN

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 09/10/7
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Acknowledgment is made of Applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application PCT/IB04/51775, filed on 09/16/04.

2. This application is in condition for allowance except for the following formal matters:

(1) This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

(2) Applicant is requested to delete the usages of term "claim" in the specification in page 3, line 24; page 3, line 29; page 4, line 7; page 4, line 21.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Reason for Allowance

3. **Claims 1-6 are allowed.**

4. The following is a statement of reasons for the indication of allowable subject matter:

Regarding **claims 1-5**, the prior art of record fails to teach or suggest an encoder for encoding audio signals, the encoder comprising:

means (10) for generating a set of spatial parameters (IPDi; ICi) indicative of spatial properties of the at least two input audio signals ($x(n), y(n)$), wherein the set of spatial parameters (IPDi; ICi) at least comprises an inter-channel coherence value (ICi) and/or an inter-channel phase difference value (IPDi), and wherein the means (10) for generating the set of spatial parameters (IPDi; ICi) comprises means (11) for determining an absolute value of the complex coherence value (Q_i) to obtain an estimate of the inter-channel coherence value (ICi), and/or means (13) for determining an argument of the complex coherence value (Q_i) to obtain an estimate of the inter-channel phase difference value (IPDi), in combination with other limitations, as specified in the independent Claim 1.

Regarding **claim 6**, the prior art of record fails to teach or suggest a method of encoding audio signals, the method comprising:

generating (10) a set of spatial parameters (IPDi; ICi) indicative of spatial properties of the at least two input audio signals ($x(n), y(n)$), wherein the set of spatial

parameters (IPDi; ICi) at least comprises an inter-channel coherence value (ICi) and/or an inter-channel phase difference value (IPDi), and wherein the step of generating (10) the set of spatial parameters (IPD; IC) comprises determining (112) an absolute value of the complex coherence value (Qi) to obtain an estimate of the inter-channel coherence value (ICi), and/or determining (113) an argument of the complex coherence value (Qi) to obtain an estimate of the inter-channel phase difference value (IPDi), in combination with other limitations, as specified in the independent Claim 6.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

| Inventor | Publication | Number | Disclosure |
|------------|-------------|---------|--|
| Jafarkhani | US Patent | 6823018 | method and apparatus reliably encode and decode information over a communication system. The method includes transforming two coefficients into two pairs of random variables, one random variable in each pair having substantially equal energy as one random variable in the other pair |

| | | | |
|------------|--------------------------|-------------|--|
| Griesinger | US Patent Publication | 20040091118 | A sound reproduction system has been developed for converting signals on two input channels into surround signals on five or seven output channels and vice-versa. |
|------------|--------------------------|-------------|--|

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Con P. Tran whose telephone number is (571) 272-7532. The examiner can normally be reached on M - F (8:30 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Vivian C. Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/CPT/

October 6, 2009

/Vivian Chin/

Supervisory Patent Examiner, Art Unit 2614